

### ***DETAILED ACTION***

#### **Status of Claims**

The following is a **NON-FINAL** office action. In accordance with the amendment to application 10/533,541 filed on 20 January 2010, applicant elected with traverse claims 1-28 for further prosecution and amended certain claims to depend from independent claim 1. Accordingly, claims 1-41 and 44-53 are pending in the application and have been examined on the merits discussed below.

- Claims 42-43 have been canceled.
- Claims 1, 4-5, 7-9, 11-13, 15, 17-34, 36-41 and 47-52 have been amended.
- Claim 53 has been added.

#### ***Response to Amendment***

#### ***Information Disclosure Statement***

The Information Disclosure Statements filed on 29 April 2005 and 14 January 2010 have been considered. An initialed copy of the Form 1449 is enclosed herewith.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 50 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim element “means for determining”, is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed

function. In particular the “means for” language encompasses software programs and/or a natural phenomenon (signal), which is not a statutory category. Appropriate correction is required.

Applicant is required to:

- (a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or
- (b) Amend the written description of the specification such that it clearly links or associates the corresponding structure, material, or acts to the claimed function without introducing any new matter (35 U.S.C. 132(a)); or
- (c) State on the record where the corresponding structure, material, or acts are set forth in the written description of the specification that perform the claimed function. For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01(o) and 2181.

Applicant asserts that the claim element “user interface subsystem” is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph. However, it is unclear whether the claim element is a means (or step) plus function limitation that invokes 35 U.S.C. 112, sixth paragraph, because the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function. If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant is required to:

- (a) Amend the claim to include the phrase “means for” or “step for” in accordance with these guidelines: the phrase “means for” or “step for” must be modified by functional language and the phrase must **not** be modified by sufficient structure, material, or acts for performing the claimed function; or
- (b) Show that the claim limitation is written as a function to be performed and the claim does **not** recite sufficient structure, material, or acts for performing the claimed function which would preclude application of 35 U.S.C. 112, sixth paragraph. For more information, see MPEP § 2181.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-41 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

A claimed process is eligible for patent protection under 35 U.S.C. 101 if:

"(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing. See Benson, 409 U.S. at 70 ('Transformation and reduction of an article 'to a different state or thing' is the clue to the patentability of a process claim that does not include particular machines.');

Diehr, 450 U.S. at 192 (holding that use of mathematical formula in process 'transforming or reducing an article to a different state or thing' constitutes patent-eligible subject matter); see also Flook, 437 U.S. at 589 n.9 ('An argument can be made [that the Supreme] Court has only recognized a process as within the statutory definition when it either was tied to a particular apparatus or operated to change materials to a 'different state or thing' ');

Cochrane v. Deener, 94 U.S. 780, 788 (1876) ('A process is...an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state or thing.').<sup>7</sup> A claimed process involving a fundamental principle that uses a particular machine or apparatus would not pre-empt uses of the principle that do not also use the specified machine or apparatus in the manner claimed. And a claimed process that transforms a particular article to a specified different state or thing by applying a fundamental principle would not pre-empt the use of the principle to transform

any other article, to transform the same article but in a manner not covered by the claim, or to do anything other than transform the specified article.” (*In re Bilski*, 88 USPQ2d 1385, 1391 (Fed. Cir. 2008))

Also noted in *Bilski* is the statement, “Process claim that recites fundamental principle, and that otherwise fails ‘machine-or-transformation’ test for whether such claim is drawn to patentable subject matter under 35 U.S.C. §101, is not rendered patent eligible by mere field-of-use limitations; another corollary to machine-or-transformation test is that recitation of specific machine or particular transformation of specific article does not transform unpatentable principle into patentable process if recited machine or transformation constitutes mere ‘insignificant post-solution activity.’” (*In re Bilski*, 88 USPQ2d 1385, 1385 (Fed. Cir. 2008)) Examples of insignificant post-solution activity include data gathering and outputting. Furthermore, the machine or transformation must impose meaningful limits on the scope of the method claims in order to pass the machine-or-transformation test.

It is also noted that the mere recitation of a machine in the preamble in a manner such that the machine fails to patentably limit the scope of the claim does not make the claim statutory under 35 U.S.C. § 101, as seen in the Board of Patent Appeals Informative Opinion *Ex parte Langemyr et al.* (Appeal 2008-1495).

Claims (1-41), as recited, are directed toward a method to (transforming a survey niche, identifying at least one partition). As currently written the steps recited in claims 1-41 are not tied to a machine, much less a significant tie to a **particular** machine (i.e. computer/processor/server/etc.).

Claims 1-41 are therefore non-statutory under § 101. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-10, 17-21, 23, 27-28, 44-46, and 48-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Juergen Branke and Michael Campos, USPGPUB 2004/0210545, (hereinafter referred to as Branke et al).

***Claim 1 –***

As per claim 1, Branke et al disclose a computer-implemented (“software on any computer readable media”, pg. 6, paragraph 0079, ll. 7-9) method to conduct an information survey, the method including:

- transforming a survey niche using a computing system (“on computers” is using a computer system, pg. 1, paragraph 0001, l. 4) to produce a transformed survey niche (“population” is survey niche, pg. 1, paragraph 0005, ll. 2-3); and
- identifying at least one characterized partition (“subpopulation” is partition, pg. 1, paragraph 0012, ll. 1-2) of entities (“individual” is entity, pg. 1, paragraph 0004, ll. 2-5) in the transformed survey niche, using the computing system (“on computers” is using a computer system, pg. 1, paragraph 0001, l. 4). (pg. 1, paragraph 0007)

***Claim 2 –***

As per claim 2, Branke et al disclose the method of claim 1, wherein the survey niche of the information resource represents at least one identifiable portion of the information resource. (“probabilistically selected” is identifiable portion, pg. 1, paragraph 0005, ll. 8-13)

***Claim 3 –***

As per claim 3, Branke et al disclose the method of claim 1, wherein a characterization of the at least one characterized partition differentiates the characterized partition from all other characterized partitions in the survey niche. (“fitness rank” is characterization, pg. 1, paragraph 0005, ll. 9-15)

***Claim 4 –***

As per claim 4, Branke et al disclose the method of claim 1, further including defining the survey niche utilizing at least one operation selected from a group of operations, including:

- initializing (“initial population may be created”, pg. 1, paragraph 0009, ll. 1-3) the survey niche of the information resource utilizing the computing system (“on computers” is using a computer system, pg. 1, paragraph 0001, l. 4); and
- forming a new survey niche based on user actions. (“individuals altered to form new individuals” is new survey niche, pg. 1, paragraph 0006, ll. 1-3)

***Claim 5 –***

As per claim 5, Branke et al disclose the method of claim 1, further including enabling presentation of at least a portion of at least one characterized partition to the user. (“PC computer”, pg. 6, paragraph 0075, ll. 7-11)

***Claim 6 –***

As per claim 6, Branke et al disclose the method of claim 1, wherein results of the information survey are used to specify modification operations (“mutation” and “crossover” is modification operation, pg. 1, paragraph 0006, ll. 3-5) on the information resource surveyed.

***Claim 7 –***

As per claim 7, Branke et al disclose the method of claim 5, further including enabling selection of at least a portion of at least one characterized partition by the user. (“probabilistically selected” is identifiable portion, pg. 1, paragraph 0005, ll. 8-13)

***Claim 8 –***

As per claim 8, Branke et al disclose the method of claim 1, further including identifying a set of entities being associated with at least one characterized partition of the survey niche. (“probabilistically selected” is identifiable portion, pg. 1, paragraph 0005, ll. 8-13)

***Claim 9 –***

As per claim 9, Branke et al disclose the method of claim 1, further including:

- transforming the survey niche by applying an operator selected from the group of operators including a crossover operator and a mutation operator; (“crossover”, pg. 1, paragraph 0006, ll. 3-5) and
- forming and representing a characterized partition as a species of entities belonging to the survey niche. (“elitism” is characterized partition, paragraph 0008)

***Claim 10 –***

As per claim 10, Branke et al disclose the method of claim 9, wherein the operator is further selected from a group of operators including a random operator, a non-random operator, and a partly random operator. (“probabilistically selected” is random operator, pg. 1, paragraph 0005, ll. 1-14)

***Claim 17 –***

As per claim 17, Branke et al disclose the method of claim 1, further including transforming the survey niche according to at least one of a single transformation (“mutation”, pg. 1, paragraph 0006, ll. 3-5) and a composite transformation (“crossover”, pg. 1, paragraph 0006, ll. 6-8).

***Claim 18 –***

As per claim 18, Branke et al disclose the method of claim 1, further including transforming the survey niche according to at least one of deterministic transformations, non-deterministic transformations, and a combination of partly deterministic and partly non-deterministic transformations. (“fitness function” is deterministic, pg. 1, paragraph 0007)

***Claim 19 –***

As per claim 19, Branke et al disclose the method of claim 1, further including transforming the survey niche according to at least one of adding, deleting, negating, modifying, binding, and resolving predicates. (“mutation” is modifying, pg. 1, paragraph 0006, ll. 1-5)

***Claim 20 –***

As per claim 20, Branke et al disclose the method of claim 1, further including transforming the survey niche by transforming the set of entities in the survey niche. (pg. 1, paragraph 0007)

***Claim 21 –***



As per claim 21, Branke et al disclose the method of claim 1, further including transforming a predicate that is at least one of single valued, set valued, range valued, and of a complex type. ("flip one bit" is single value, pg. 1, paragraph 0006, ll. 9-12)

***Claim 23 –***

As per claim 23, Branke et al disclose the method of claim 1, further including transforming a set of predicates such that the transformed set of predicates is not itself satisfiable. ("removed from the population" is not satisfiable, pg. 1, paragraph 0008, ll. 12-15)

***Claim 27 –***

As per claim 27, Branke et al disclose the method of claim 1, further including transforming the survey niche in order to achieve transformation goals from a group including a specific or general contraction, a specific or general expansion, and a specific or general shifting of the survey niche. ("mutation" and "crossover" is general shifting, pg. 1, paragraph 0006, ll. 3-7)

***Claim 28 –***

As per claim 28, Branke et al disclose the method of claim 1, further including transforming a set of predicates so as to achieve differentiation of partitions and entities. ("probabilistically selected" is identifiable portion, pg. 1, paragraph 0005, ll. 8-13)

***Claim 44 –***

Claim 44 is directed to a system (Fig. 4) to conduct an information survey. Claim 44 recites the same or similar limitations as those addressed above for claim 1. Claim 44 is therefore rejected for the same reasons as set forth above for claim 1, respectively.

***Claim 45 –***

Claim 45 is directed to a system (Fig. 4) to conduct an information survey. Claim 45 recites the same or similar limitations as those addressed above for claim 2. Claim 45 is therefore rejected for the same reasons as set forth above for claim 2, respectively.

***Claim 46 –***

As per claim 46, Branke et al disclose the system of claim 44, wherein the system includes at least one manager selected from a group of managers including: a survey manager to maintain survey configuration information and manage multiple survey generations; a session manager to manage survey sessions and obtain services from other managers; a predicate manager to manage terms, concepts, and predicates, and perform disambiguation; a user manager to manage user information; a persistence manager to store and retrieve information for other managers; an integration manager to connect with external systems other than information resources; and a user interface manager for creating and managing displays and handling user input. (Fig. 4, Fig. 2A and Fig. 2B)

***Claim 48 –***

Claim 48 is directed to a system (Fig. 4) to conduct an information survey. Claim 48 recites the same or similar limitations as those addressed above for claim 22. Claim 48 is therefore rejected for the same reasons as set forth above for claim 22, respectively.

***Claim 49 –***

As per claim 49, Branke et al disclose the system of claim 44, further including a user interface subsystem for information surveying, the subsystem including: a means for capturing user input to initialize a survey niche; and a displaying means for presenting a plurality of characterized partitions to the user. (Fig. 2A, Item 203)

***Claim 50 –***

As per claim 50, Branke et al disclose the user interface subsystem of claim 49, the user interface including at least one means selected from a group consisting of: a means for capturing user input to modify the survey niche, a means for user provision of predicates to initialize the survey niche, a means for user provision of example entities to initialize the survey niche, a means for triggering the transformation of the survey niche, a means for enabling the user to make a selection from the plurality of characterized partitions, a means for iterating to identify a new survey niche and its characterized partitions according to the user selection from the plurality of characterized partitions, a means for presenting and providing user access to at least one entity from the information resource associated with the characterized partition, a means for iterating to identify a new survey niche and its characterized partitions according to the user selection from the entities contained in the plurality of characterized partitions, a means for providing support for user interaction for purposes of assessment of trade-offs between the characterized partitions from the plurality of characterized partitions, wherein the assessment of tradeoffs include comparing and contrasting of the characterized partitions from the plurality of characterized partitions, a means for enabling the user to manage and persist the information survey, a means for enabling the user to manage and persist the survey niche, a means for managing and presenting a survey monitor to provide the user with additional information about the plurality of characterized partitions and their entities, a means for managing a plurality of metadata modifiers for the plurality of survey niche predicates and survey monitors, and a means for user control of transformation mechanisms used to transform the survey niche. (pg. 1, paragraphs 0009 – 0013 and Fig. 4, Item 401a)

***Claim 51 –***

As per claim 51, Branke et al disclose the user interface subsystem (Fig. 4, Item 401a) of claim 49, wherein the interface includes a means for presenting at least one survey lattice element.

***Claim 52 –***

As per claim 52, Branke et al disclose the user interface subsystem of claim 49, wherein the interface includes a survey lattice table for presenting at least one survey lattice element, (Fig. 3)

***Claim 53 –***

As per claim 53, Branke et al disclose the system of claim 47, further including a data structure, wherein survey lattice elements are based on a source from a group of sources including an index, a conceptual structure, a database, and a category system. (Fig. 4)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Branke et al, and further in view of Nosa Omoigui, USPGPUB 2004/0230572, (hereinafter referred to as Omoigui).

***Claim 11 –***

As per claim 11, Branke et al in view of Omoigui disclose the method of claim 1. Branke et al teach the method of claim 1 and do not explicitly teach semantic operator and conceptual structure. However, Omoigui teaches further including:

- transforming the survey niche by applying at least one of a semantic operator (“semantic browser”, pg. 1, paragraph 0018, ll. 1-3, of Omoigui) and a conceptual structure; and
- forming and representing the at least one characterized partition of entities in the transformed survey niche as a concept. (“concepts”, pg. 11, paragraph 0364, ll. 1-14 of Omoigui)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al to include semantics systems and concepts to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to increase the density and richness of relevant search results (pg. 4, paragraph 0157, ll. 1-5 of Omoigui) to expand the method of Branke et al in this way since Omoigui discusses information management and research systems performing information searches (pg. 1, paragraph 0003 of Omoigui)

#### ***Claim 12 –***

As per claim 12, Branke et al in view of Omoigui disclose the method of claim 1. Branke et al teach the method of claim 1 and do not explicitly teach semantic property and conceptual structure. However, Omoigui teaches further including defining the survey niche by a predicate of at least one of property, attribute, trait, characteristic, function, relation, relationship, measurement, constraint, semantic property, action, coding sequence, objective, goal, and criteria. (“SQML” is semantic property, pg. 1, paragraph 0017, ll. 1-3 of Omoigui)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al to include semantics systems and concepts to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to increase the density and richness of relevant search results (pg. 4, paragraph 0157, ll. 1-5 of Omoigui) to expand the method of Branke et al in this way since

Omoigui discusses information management and research systems performing information searches (pg. 1, paragraph 0003 of Omoigui)

***Claim 13 –***

As per claim 13, Branke et al in view of Omoigui disclose the method of claim 1. Branke et al teach further including associating a survey monitor with the survey niche. (“generational reproduction method” is survey monitor, pg. 1, paragraph 0008, ll. 6—9)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al to include survey monitors to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to increase the density and richness of relevant search results (pg. 4, paragraph 0157, ll. 1-5 of Omoigui) to expand the method of Branke et al in this way since Omoigui discusses information management and research systems performing information searches (pg. 1, paragraph 0003 of Omoigui)

***Claim 14 –***

As per claim 14, Branke et al in view of Omoigui disclose the method of claim 1. Branke et al teach the method of claim 1 and do not explicitly teach semantic property and conceptual structure. However, Omoigui teaches wherein the predicate represents an item selected from a group including a trait, a coding sequence, and a semantically defined characteristic. (“semantic thread” is semantically defined characteristic, pg. 1, paragraph 0026 of Omoigui)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al to include semantics systems and concepts to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to increase the density and richness of relevant search results (pg. 4, paragraph 0157, ll. 1-5 of Omoigui) to expand the method of Branke et al in this way since

Omoigui discusses information management and research systems performing information searches (pg. 1, paragraph 0003 of Omoigui)

***Claim 22 –***

As per claim 22, Branke et al in view of Omoigui disclose the method of claim 1. Branke et al teach the method of claim 1 and do not explicitly teach semantic property and conceptual structure. However, Omoigui teaches further including transforming a predicate according to at least one operation selected from a group of semantic transformation operations including generalization/specialization, mereological transformation, relationship transformation, data type transformation, and action transformation. (“semantically integrated knowledge system”, pg. 1, paragraph 0005, ll. 1-5 of Omoigui)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al to include semantics systems and concepts to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to increase the density and richness of relevant search results (pg. 4, paragraph 0157, ll. 1-5 of Omoigui) to expand the method of Branke et al in this way since Omoigui discusses information management and research systems performing information searches (pg. 1, paragraph 0003 of Omoigui)

Claims 15, 16, 24-26, 29-41 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Branke et al in view of Omoigui, and further in view of Wen Syan Li, Kasim Selouk Candan and Divyakant Agrawal, USPAT 6,591,266 (hereinafter referred to as Li et al).

***Claim 15 –***

As per claim 15, Branke et al in view of Omoigui and further in view of Li et al disclose the method of claim 1. Branke et al and Omoigui teach claim 1 and do not explicitly teach survey

lattice. However, Li et al teach further including forming and representing the at least one characterized partition of entities in the transformed survey niche as a survey lattice element. (Fig. 14 and Fig. 15 of Li et al)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al and Omoigui to include survey lattice to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to improve efficiency of survey delivery (col. 2, ll. 6-7 of Li et al) to expand the method of Branke et al and Omoigui in this way since Li et al discusses the system having a database management system for storing data used to generate surveys (ABS., ll. 1-5 of Li et al)

***Claim 16 –***

As per claim 16, Branke et al in view of Omoigui and further in view of Li et al disclose the method of claim 15. Branke et al and Omoigui teach claim 15 and do not explicitly teach survey lattice. However, Li et al teach wherein the forming and representing includes at least one operation selected from a group of operations including forming maximal satisfiable elements of the survey lattice, forming non-maximal satisfiable elements of the survey lattice, forming minimal unsatisfiable elements (“removed from the population” is unsatisfiable, pg. 1, paragraph 0008, ll. 12-15 of Branke et al) of the survey lattice, and forming non-minimal unsatisfiable elements of the survey lattice. (Fig. 14 and Fig. 15 of Li et al)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al and Omoigui to include survey lattice to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to improve efficiency of survey delivery (col. 2, ll. 6-7 of Li et al) to expand the method of Branke et al and Omoigui in this way since Li et al discusses the system having a database management system for storing data used to generate surveys (ABS., ll. 1-5 of Li et al)

***Claim 24 –***



As per claim 24, Branke et al in view of Omoigui and further in view of Li et al disclose the method of claim 15. Branke et al and Omoigui teach claim 15 and do not explicitly teach survey lattice. However, Li et al teach further including transforming a set of predicates to generate a number of maximal satisfiable ("rank-based selection" is maximal satisfiable, pg. 1, paragraph 0005, ll. 11-13 of Branke et al) survey lattice (Fig. 14 and Fig. 15 of Li et al) elements such that a number of maximal satisfiable survey lattice elements of the transformed survey lattice is bounded by an upper bound, a lower bound, or an upper bound and a lower bound.

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al and Omoigui to include survey lattice to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to improve efficiency of survey delivery (col. 2, ll. 6-7 of Li et al) to expand the method of Branke et al and Omoigui in this way since Li et al discusses the system having a database management system for storing data used to generate surveys (ABS., ll. 1-5 of Li et al)

***Claim 25 –***

As per claim 25, Branke et al in view of Omoigui and further in view of Li et al disclose the method of claim 1. Branke et al and Omoigui teach claim 1 and do not explicitly teach survey lattice. However, Li et al teach further including transforming a set of predicates to generate a number of minimal unsatisfiable ("removed from the population" is unsatisfiable, pg. 1, paragraph 0008, ll. 12-15 of Branke et al) survey lattice elements such that a number of minimal unsatisfiable survey lattice elements of the transformed survey lattice (Fig. 14 and Fig. 15 of Li et al) is bounded by an upper bound, a lower bound, or an upper bound and a lower bound.

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al and Omoigui to include survey lattice to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to improve efficiency of survey delivery (col. 2, ll. 6-7 of Li et al) to expand the

method of Branke et al and Omoigui in this way since Li et al discusses the system having a database management system for storing data used to generate surveys (ABS., ll. 1-5 of Li et al)

***Claim 26 –***

As per claim 25, Branke et al in view of Omoigui and further in view of Li et al disclose the method of claim 1. Branke et al and Omoigui teach claim 1 and do not explicitly teach survey lattice. However, Li et al teach further including transforming a set of predicates such that the transformed set of predicates at least partly matches a set of predicates for which survey lattice elements are already formed. (Fig. 14 and Fig. 15 of Li et al)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al and Omoigui to include survey lattice to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to improve efficiency of survey delivery (col. 2, ll. 6-7 of Li et al) to expand the method of Branke et al and Omoigui in this way since Li et al discusses the system having a database management system for storing data used to generate surveys (ABS., ll. 1-5 of Li et al)

***Claim 29 –***

As per claim 25, Branke et al in view of Omoigui and further in view of Li et al disclose the method of claim 1. Branke et al and Omoigui teach claim 1 and do not explicitly teach survey lattice. However, Li et al teach further comprising generating a survey lattice as a specialization of a predicate lattice. (Fig. 14 and Fig. 15 of Li et al)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al and Omoigui to include survey lattice to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to improve efficiency of survey delivery (col. 2, ll. 6-7 of Li et al) to expand the method of Branke et al and Omoigui in this way since Li et al discusses the system having a database management system for storing data used to generate surveys (ABS., ll. 1-5 of Li et al)

***Claim 30 –***

Claim 30 is directed to a method to conduct an information survey. Claim 30 recites the same or similar limitations as those addressed above for claim 4. Claim 30 is therefore rejected for the same reasons as set forth above for claim 4, respectively.

***Claim 31 –***

Claim 31 is directed to a method to conduct an information survey. Claim 31 recites the same or similar limitations as those addressed above for claims 1 and 7. Claim 31 is therefore rejected for the same reasons as set forth above for claims 1 and 7, respectively.

***Claim 32 –***

Claim 32 is directed to a method to conduct an information survey. Claim 32 recites the same or similar limitations as those addressed above for claim 16. Claim 32 is therefore rejected for the same reasons as set forth above for claim 16, respectively.

***Claim 33 –***

Claim 33 is directed to a method to conduct an information survey. Claim 33 recites the same or similar limitations as those addressed above for claim 25. Claim 33 is therefore rejected for the same reasons as set forth above for claim 25, respectively.

***Claim 34 –***

Claim 34 is directed to a method to conduct an information survey. Claim 34 recites the same or similar limitations as those addressed above for claim 9. Claim 34 is therefore rejected for the same reasons as set forth above for claim 9, respectively.

***Claim 35 –***

Claim 35 is directed to a method to conduct an information survey. Claim 35 recites the same or similar limitations as those addressed above for claim 11. Claim 35 is therefore rejected for the same reasons as set forth above for claim 11, respectively.

***Claim 36 –***

Claim 36 is directed to a method to conduct an information survey. Claim 36 recites the same or similar limitations as those addressed above for claim 12. Claim 36 is therefore rejected for the same reasons as set forth above for claim 12, respectively.

***Claim 37 –***

Claim 37 is directed to a method to conduct an information survey. Claim 37 recites the same or similar limitations as those addressed above for claim 13. Claim 37 is therefore rejected for the same reasons as set forth above for claim 13, respectively.

***Claim 38 –***

Claim 38 is directed to a method to conduct an information survey. Claim 38 recites the same or similar limitations as those addressed above for claim 15. Claim 38 is therefore rejected for the same reasons as set forth above for claim 15, respectively.

***Claim 39 –***

Claim 39 is directed to a method to conduct an information survey. Claim 39 recites the same or similar limitations as those addressed above for claim 22. Claim 39 is therefore rejected for the same reasons as set forth above for claim 22, respectively.

***Claim 40 –***

Claim 40 is directed to a method to conduct an information survey. Claim 40 recites the same or similar limitations as those addressed above for claim 26. Claim 40 is therefore rejected for the same reasons as set forth above for claim 26, respectively.

***Claim 41 –***

Claim 41 is directed to a method to conduct an information survey. Claim 41 recites the same or similar limitations as those addressed above for claim 27. Claim 41 is therefore rejected for the same reasons as set forth above for claim 27, respectively.

***Claim 47 –***

As per claim 47, Branke et al in view of Omoigui and further in view of Li et al disclose the method of claim 44. Branke et al and Omoigui teach claim 44 and do not explicitly teach survey lattice. However, Li et al teach wherein the partition manager is a survey lattice manager to generate a survey lattice element. (Fig. 14 and Fig. 15 of Li et al)

It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the method of Branke et al and Omoigui to include survey lattice to teach the limitation of the present application. One of ordinary skill in the art at the time of the invention would have been motivated to improve efficiency of survey delivery (col. 2, ll. 6-7 of Li et al) to expand the method of Branke et al and Omoigui in this way since Li et al discusses the system having a database management system for storing data used to generate surveys (ABS., ll. 1-5 of Li et al)

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM PORTER whose telephone number is (571)270-7786. The examiner can normally be reached on Monday Through Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/W.P./

/Beth V. Boswell/

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